

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 79-68

NPDES NO. CA0037869

WASTE DISCHARGE REQUIREMENTS FOR:

EAST BAY DISCHARGERS AUTHORITY (EBDA)  
CITY OF HAYWARD (Hayward)  
CITY OF SAN LEANDRO (San Leandro)  
ORO LOMA SANITARY DISTRICT (OLSD) &  
CASTRO VALLEY SANITARY DISTRICT (CVSD)  
UNION SANITARY DISTRICT (USD)  
ALVARADO PLANT  
IRVINGTON PLANT  
NEWARK PLANT

--AND--

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY (LAVWMA),  
CITY OF LIVERMORE (Livermore)  
DUBLIN-SAN RAMON SERVICES DISTRICT (DSRSD) &  
CITY OF PLEASANTON (Pleasanton)  
ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region  
(hereinafter called the Board), finds that:

1. The East Bay Dischargers Authority (EBDA), by application effective March 7, 1979, on behalf of itself and its member agencies, above, has applied for renewal of waste discharge requirements and reissuance of permit(s) to discharge combined wastes through a common outfall under the National Pollutant Discharge Elimination System (NPDES), commencing upon completion of the outfall which is currently scheduled for October 1980.
2. The Livermore-Amador Valley Water Management Agency (LAVWMA) by application which became effective March 26, 1979, on behalf of itself, has applied for waste discharge requirements and issuance of an NPDES permit to discharge wastes. Its member agencies have applied for reissuance of NPDES permits to discharge wastes. The Livermore and DSRSD applications are effective February 20 and 22, 1979, respectively. EBDA, LAVWMA, and their member agencies are hereinafter collectively and individually referred to as dischargers.
3. Both EBDA and LAVWMA are Joint Exercise of Powers Agencies which exist under Joint Exercise of Powers Agreements (JEPA) to operate treated wastewater transport and disposal facilities. LAVWMA will transport effluent from its member agencies to the EBDA system in its transmission, flow-equalization, chlorination, and pumping facilities. By contractual agreement, EBDA will transport LAVWMA treated wastewater jointly with the treated wastewater from its member agencies to its dechlorination station near the San Leandro Marina and thence to a deepwater outfall in San Francisco Bay west of the Oakland Airport at longitude 122° 17' west, latitude 37° 41' north. The outfall's diffuser is located 30,000 feet from shore; it discharges 23.5 feet below the surface (at MLLW); and it

is designed to provide minimum initial dilution greater than 10:1 at all times, and about 45:1 50% of the time. Because LAVVMA's facilities will be completed before EBDA's outfall, its wastewater may be discharged for about one year through Hayward's present shoreline outfall. A map showing the proposed facilities is appended as ATTACHMENT A, hereinafter a part of this Order.

4. All the EBDA and LAVVMA member agencies currently operate, and will continue to operate, their own collection and treatment facilities, except that:
  - a. Castro Valley S.D. contracts with Oro Loma S.D. for treatment.
  - b. Union S.D. is consolidating all treatment at Alvarado.
  - c. Pleasanton contracts with DSRSD to treat and dispose approximately half of its wastes. The City is implementing a project to divert all its sewage to DSRSD to permit abandonment of its Sunol Boulevard treatment and land disposal facility.
5. The reports of waste discharge describe the existing and proposed discharges to waters of the United States as follows:

AGENCY	DISCHARGE LOCATIONS		Design Avg Dry Weather Flow MGD	Peak Wet Weather Flow MGD
	EXISTING	PROPOSED		
EBDA	None	D (1)	72.82 (1a)	185.0 (1a)
San Leandro	S.F. Bay (at shoreline)	D	7.60	22.3
Oro Loma/ Castro Valley	S.F. Bay (near-shore)	D	14.70 (5)	69.2
Hayward	S.F. Bay (at shoreline)	D	15.20	35.0
USD, Alvarado (new)	(None)	D	19.70 (6)	42.9
Alvarado (existing) (2,3)	Alameda Creek (3 miles inland)	None	4.5 (3)	9.5 (3)
Newark (2,3)	Newark Slough	None	7.0 (3)	14.0 (3)
Irvington (2,3)	Mud Slough	None	10.5 (3)	13.8 (3)

(TABLE CONTINUED)

LAVWMA	None	Interim & D	15.62 <sup>(4)</sup>	15.62
Livermore	Arroyo Las Positas (Ala. Creek tributary)	Interim & D	6.25	11.4
DSRSD	Alamo Canal (Ala. Creek tributary)	Interim & D	8.34	18.61
<p>NOTES: (1) Deeper Bay waters - see ATTACHMENT A.  (1a) Includes LAVWMA flows, at 15.62 MGD.  (2) To be abandoned.  (3) Interim.  (4) Avg. day, maximum month, rating is per grant contract.  (5) Purchased capacity in EBDA system. Plant is rated 20 MGD.  (6) Grant funded capacity. Also, purchased capacity in EBDA system. District Manager reports that plant is designed for 20 MGD.</p>				

6. EBDA's JEPA delegates the authority and responsibility to EBDA to assure compliance with all waste discharge requirements. It is the intent of the EBDA JEPA to allow determination of compliance with waste discharge requirements by considering EBDA as a total system, to permit the most effective operation of all EBDA and member agency treatment facilities. The EBDA JEPA, therefore, empowers that Joint Agency to monitor each member agency's discharge and the combined discharge and prescribes that the Joint Agency may, if necessary, undertake modifications of any member agency's treatment facilities to secure compliance with discharge requirements.

Since LAVWMA and its tributary agencies are not signatories to the EBDA JEPA, the EBDA-LAVWMA agreement empowers EBDA to monitor discharges by LAVWMA into the EBDA system and requires LAVWMA, as a condition of continuing service, to comply with all requirements prescribed by the Regional Board, except residual chlorine, for which EBDA will be responsible.

The LAVWMA JEPA limits that Joint Agency to providing and operating the transport (and auxiliary) facilities from its member agencies' plants to EBDA. LAVWMA is not empowered to take actions to secure member agency compliance with requirements.

7. As used herein, "Common Outfall" means the EBDA outfall; "Combined Discharge" refers to the waste stream at any point where all wastes tributary to that outfall are present; and "Individual Treatment Plant" means a treatment facility operated by a member agency of either EBDA or LAVWMA.
8. Agencies of EBDA and LAVWMA which are currently in process of revising their treatment facilities are:

AGENCY	PURPOSE AND NATURE OF PROJECT	FORECAST COMPLETION
San Leandro	Construct new "roughing" filter (fixed film reactor) and abandon final oxidation (polishing) ponds.	September 1981
Hayward	Provide new secondary treatment facilities and abandon ponds.	Early 1983
UNION SANITARY DISTRICT	Consolidation of all treatment at new Alvarado Plant. Newark and Irvington plants will be abandoned.	April 1981
DSRSD	Expand secondary treatment capacity from 6.0 MGD to 8.34 MGD to permit abandonment of Pleasanton's plant (Sunol Blvd.).	September 1980
LIVERMORE	Expand capacity from 5.0 MGD to 6.25 MGD to accommodate population increase.	February 1982

9. Livermore currently uses about 15-20% of its total effluent flow for irrigation (airport, golf course, and agricultural applications). Requirements for irrigation and groundwater protection are prescribed in Board Order No. 71-76. LAVVMA is conducting a study on the feasibility of continued reclamation in the Livermore-Amador Valley, the first phase of which should be completed in July 1979.

EBDA is investigating reclamation, and portions of its transport facilities have been designed specifically to facilitate reclamation.

10. A Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) was adopted by the Board in April 1975. The Basin Plan contains water quality objectives for the San Francisco Bay, Alameda Creek, Arroyo De La Laguna, and their tributaries.
11. The existing and potential beneficial uses of San Francisco Bay and its tributaries include:
  - a. Industrial service supply
  - b. Navigation
  - c. Recreation
  - d. Commercial and sport fishing
  - e. Fish and wildlife habitat and resting areas
  - f. Shellfishing
  - g. Fish spawning areas
12. The existing and potential beneficial uses of Alameda Creek, Arroyo Las Positas, Alamo Canal, Arroyo de la Laguna and their tributaries include:

- a. Agriculture (Alameda Creek only)
- b. Groundwater recharge
- c. Recreation
- d. Fish and wildlife habitat
- e. Fish migration route
- f. Fish spawning areas

13. The Basin Plan states that it shall be prohibited to discharge:

"Any wastewater which has characteristics of concern to beneficial uses into San Francisco Bay south of the Dumbarton Bridge. Exceptions will be considered where the discharge is approved as part of a reclamation project or where it can be demonstrated that a net environmental benefit will be derived from such a discharge."

The Basin Plan states further, with respect to Alameda Creek watershed discharges:

"The direct discharge of wastewater shall be prohibited during the portion of the year when no natural flow occurs in Alameda Creek above Niles. The threat of a buildup of dissolved solids, stable organics and other pollutants in the groundwater of the Niles Cone area recharged with waters of Alameda Creek is most critical in the dry weather period when wastewaters may account for up to 20 percent of the water percolating to the basin."

-and-

"Alameda Creek Watershed. The following chemical quality limits shall be maintained in the surface waters of the Alameda Creek watershed above Niles:

TDS:	250 mg/l 90 day-arithmetic mean
	360 mg/l 90 day-90th percentile
	500 mg/l daily maximum
Chlorides:	60 mg/l 90 day-arithmetic mean
	100 mg/l 90 day-90th percentile
	250 mg/l daily maximum

Whenever natural factors cause the above limits to be exceeded, then, subject to the exception below, controllable water quality factors shall not cause further degradation.

Nondegradation Objective. The policy enumerated in the State Water Resources Control Board Resolution 68-16, "Statement of Policy With Respect to Maintaining High Quality Waters in California" shall apply to all waters of the State within the Basin."

14. Requirements for the EBDA deepwater discharge to San Francisco Bay are presently prescribed in Order No. 74-128. Other orders affecting EBDA, LAVWHA, and all member agencies are shown under "Provisions" in paragraph D.3 of this Order.

15. By letters of June 15, 21, and 23, 1978, Union Sanitary District, Hayward, and San Leandro, respectively, requested an NPDES Permit time extension for construction of required facilities, in response to notifications by this Board. These requests were pursuant to Section 301(i)(1) of the Federal Water Pollution Control Act (FWPCA), as amended. Further information from the dischargers indicates that they have acted in good faith, the delays are beyond their control, full compliance with all requirements will be achieved in the shortest reasonable time, and the respective waste treatment facilities will operate at optimum conditions in the interim prior to achieving full compliance with the effluent requirements of this Order.

Oro Loma Sanitary District and EBDA were not notified by the staff that they could request time schedule extensions pursuant to Section 301(i)(1). OLSA's current permit requires full compliance consistent with this Order's time schedule. EBDA's requirements will not be applicable until discharge commences via the common outfall.

LAVWMA currently has neither requirements nor a compliance time schedule, but both are prescribed for its member agencies. DSRSD and Livermore currently meet Federal water quality standards for secondary treatment, but not State water quality objectives. Full compliance will be achieved when discharge via the common outfall commences. Interim requirements applicable to Hayward prior to discharge via the common outfall will also include LAVWMA.

16. EBDA and LAVWMA, as the lead agencies, have prepared final Environmental Impact Reports dated July 1976 and August 1976 (with September 1977 supplement), respectively, for their wastewater management projects in accordance with the California Environmental Quality Act (Public Resources Code, Section 2100 et seq.). The members of this Regional Board have received and reviewed a summary of these documents.
17. The projects will have the following adverse effects on the environment:
- A. Operation of the LAVWMA system will reduce the use of Bay assimilative capacity for other discharges.
  - B. Operation of the EBDA outfall-diffuser system will cause a long-term localized impact on bottom organisms adjacent to the diffuser site, within a maximum radius of approximately one-half mile.
  - C. Operation of **the LAVWMA system will reduce flows in Alameda Creek and tributaries**, which could reduce vegetative growth and aquatic habitat in these channels.
18. The Discharge Prohibition, Effluent and Receiving Water Limitations, and Provisions of this Order mitigate or avoid the adverse environmental effects of these projects, noted in 17.A and 17.B, above. The impacts described in sub-paragraph C are outweighed by public health concerns relative to groundwater recharge and partially reduced by mowing of the vegetative growth to reduce fire hazard.

19. The Board has notified the dischargers and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
20. The Board, in a public meeting, heard and considered all comments pertaining to the discharges.
21. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act, or amendments thereto, and shall take effect at the end of ten days from date of hearing provided the Regional Administrator of the U. S. Environmental Protection Agency has no objections.

IT IS HEREBY ORDERED that the dischargers, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Federal Water Pollution Control Act and regulations and guidelines adopted thereunder, shall comply with the following.

A. PROHIBITIONS

1. There shall be no bypass or overflow of untreated wastewater to waters of the State, either at the individual treatment plants or from interceptor, collection, transmission, or ancillary facilities at any time.
2. The discharge of waste at any point at which the wastewater does not receive an initial dilution of 10:1 is prohibited.
3. Discharge to San Francisco Bay, south of Dumbarton Bridge or tributaries thereto is prohibited.
4. Direct discharge of wastewater to Alameda Creek or its tributaries is prohibited during the portion of the year when no natural flow occurs in Alameda Creek above Niles.
5. The average daily dry weather flow shall not exceed the following: (Averages shall be determined over three consecutive dry weather months.)

AGENCY	MGD	DATE APPLICABLE
EBDA	72.82*	Immediately (1)
San Leandro	7.60	Immediately
OLSD	20.	Immediately
Hayward	15.20	Immediately (2)
USD:		
Alvarado	4.5	Immediately (2)
Alvarado	19.7	After February 1981 (3)
Newark	7.0	Immediately (2)
Newark	0	After March 1981 (3)
Irvington	10.5	Immediately (2)
Irvington	0	After April 1981 (3)
LAVVMA	15.62**	Immediately (4)
DSRSD	5.0	Immediately
	6.0	After January 1980
	8.34	After September 1980 (5)
Livermore	5.0	Immediately
Livermore	6.25	After February 1982 (5)

NOTES:

\*Including 15.62 MGD from LAVVMA.

\*\* Average day of maximum month as per grant rating. Average daily dry weather flow shall not exceed 8.34 (DSRSD) plus 6.25 (Livermore), or 14.59 MGD.

1. Discharge will commence after system completion - scheduled for October 1980.
2. Discharge does not meet full secondary treatment requirements.
3. Scheduled date for completion of full secondary level facilities. Grant funded capacity and purchased capacity in EBDA system are 19.7 MGD. District Manager reports that plant is designed for 20 MGD.
4. Scheduled for completion in September 1979.
5. Scheduled date for completion of current expansion.

B. EFFLUENT LIMITATIONS

1. The dischargers shall meet limitations specified below, provided that prior to achieving compliance with all of the above prohibitions and with effluent limitations specified below, the interim limitations shown in ATTACHMENT I through VIII shall apply, in accordance with the time schedule in said attachments. Compliance with effluent limitations shall be demonstrated in the individual treatment plant discharges, except that EBDA may elect to demonstrate compliance with requirements denoted by \* in the combined discharge after prior approval by the Executive Officer. Such demonstration would be based upon summing the EBDA agency loadings.

\*a. Biochemical Oxygen Demand (5-day): and

\*b. Suspended solids:



Discharger	30-day			7-day avg			max. daily		
	mg/L	lbs/day	kg/day	mg/L	lbs/day	kg/day	mg/L	lbs/day	kg/day
San Leandro	30	3228	1464	45	4341	2195	60	11159	5060
OLSD/CVSD	30	5154	2337	45	7731	3506	60	34628	15704
Hayward	30	4779	2167	45	7168	3251	60	17514	7943
USD, Alvarado	30	5429	2462	45	8144	3693	60	21467	9736
Livermore	30	1726	783	45	2590	1174	60	5704	2587
DSRSD	30	2702	1225	45	4053	1838	60	9312	4226

\*c. Oil and Grease:

Discharger	30-day avg			max. daily		
	mg/L	lbs/day	kg/day	mg/L	lbs/day	kg/day
San Leandro	10	1076	488	20	3720	1687
OLSD/CVSD	10	1718	779	20	11543	5235
Hayward	10	1593	722	20	5838	2648
USD, Alvarado	10	1810	821	20	7156	3245
Livermore	10	575	261	20	1902	862
DSRSD	10	901	408	20	3104	1409

\*d. Settleable Matter (All Dischargers):

30-day average ml/L-hr.	Instantaneous Maximum ml/L-hr.
0.1	0.2

\*e. The discharges shall not have a pH of less than 6.0 nor greater 9.0.

\*f. In any representative set of samples, the waste as discharged shall meet the following limit on toxicity:\*\*

The survival of test fishes in 96-hour bioassays of the effluent shall be a 90 percentile value of not less than 50 percent survival. Exceptions to this limitation may be granted, and revised toxicity requirements established by the Regional Board, pursuant to public hearing, if the discharger can demonstrate to the satisfaction of the Board that the following conditions are met:

- (1) The waste is discharged through a deepwater outfall which achieves rapid and high initial dilution and that the waste is rapidly rendered nonacutely toxic upon discharge, and
- (2) The toxicants in the waste are nonconservative constituents which are rapidly decayed in the receiving water; or the toxicants in the waste are conservative constituents for which water quality objectives have been established. The Regional Board will, in such cases, establish effluent mass emission rates for such constituents.

\*\*Samples may be dechlorinated in the laboratory prior to testing.

- \*g      The arithmetic mean of the biochemical oxygen demand (5-day, 20°C) and suspended solids values, by weight, for individual treatment plant effluent samples collected in a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected at approximately the same times during the same period (85 percent removal).
2.    The chlorine residual of the direct discharge from any individual treatment plant to surface waters shall not exceed 0.0 mg/l. The discharge of individual treatment plant effluents to LAVWMA or EBDA facilities may exceed 0.0 mg/l, however the chlorine residual of the combined discharge from the EBDA common outfall shall not exceed 0.0 mg/l.
  3.    At any point in the individual treatment plant discharges where all wastes are present, the effluent total coliform bacteria concentration for a median of five consecutive effluent samples shall not exceed 240 MPN per 100 milliliters. Any single sample shall not exceed 10,000 MPN per 100 milliliters. EBDA may elect to demonstrate compliance with this requirement in the combined discharge after prior approval by the Executive Officer.

4. Representative samples of the individual treatment plant discharges shall not exceed the following limits more than the time indicated.

		San Leandro	Oro Loma San. Dist.	Hayward	Union San. Dist.-Alv. (new)	EBDA (2)	DSRSD	Livermore
Constituent	Unit of Measurement	6 MONTH MEDIAN						
Arsenic	mg/l (kg/day)	0.01 (0.29)	.01 (.56)	.01 (.57)	.01 (.75)		.01 (.24)	.01 (.32)
Cadmium	mg/l (kg/day)	0.02 (0.57)	.02 (1.11)	.02 (1.15)	.02 (1.49)		.02 (.47)	.02 (.63)
Total Chromium	mg/l (kg/day)	0.025(0.72)	.005(.28)	.02 (1.15)	.01 (.75)		.005(.12)	.005(.16)
Copper	mg/l (kg/day)	0.2 (5.75)	.2 (11.12)	.2 (11.50)	.2 (14.90)		.2 (4.73)	.2 (6.31)
Lead	mg/l (kg/day)	0.16 (4.60)	.1 (5.56)	.1 (5.75)	.1 (7.45)		.1 (2.36)	.1 (3.15)
Mercury	mg/l (kg/day)	0.004(0.11)	.001(.06)	.001(.06)	.001(.07)		.001(.02)	.001(.03)
Nickel	mg/l (kg/day)	0.2 (5.75)	.1 (5.56)	.1 (5.75)	.1 (7.45)		.1 (2.36)	.1 (3.15)
Silver	mg/l (kg/day)	0.02 (0.57)	.02 (1.11)	.02 (1.15)	.02 (1.49)		.02 (.47)	.02 (.63)
Zinc	mg/l (kg/day)	0.3 (8.62)	.3 (16.68)	.3 (17.25)	.3 (22.35)		.3 (7.09)	.3 (9.46)
Cyanide	mg/l (kg/day)	0.1 (2.87)	.1 (5.56)	.1 (5.75)	.1 (7.45)		.1 (2.36)	.1 (3.15)
Phenolic Compounds	mg/l (kg/day)	0.5 (14.37)	.5 (27.8)	.5 (28.75)	.5 (37.26)		.5 (11.82)	.5 (15.77)
Total Identifi- able Chlorinated Hydrocarbons (1)	mg/l (kg/day)	0.002(0.06)	.002(.11)	.002(.11)	.002 (.15)		.002(.05)	.002(.06)
Constituent	Unit of Measurement	D A I L Y M A X I M U M						
Arsenic	mg/l(kg/day)	.04(1.15)	.04(2.22)	.04(2.30)	.04(2.98)		.04(.95)	.04(1.26)
Cadmium	mg/l(kg/day)	.08(2.30)	.08(4.45)	.08(4.60)	.08(5.96)		.08(1.89)	.08(2.52)
Total Chromium	mg/l(kg/day)	.10(2.87)	.02(1.11)	.08(4.60)	.04(2.98)		.02(.47)	.02(.63)
Copper	mg/l(kg/day)	.80(23.0)	.80(44.48)	.80(45.99)	.80(59.61)		.80(18.91)	.80(25.24)
Lead	mg/l(kg/day)	.64(18.40)	.40(22.24)	.40(23.0)	.40(29.80)		.40(9.46)	.40(12.63)
Mercury	mg/l(kg/day)	.16 (.46)	.004(.22)	.004(.23)	.004(.30)		.004(.09)	.004(.13)
Nickel	mg/l(kg/day)	.80(23.0)	.40(22.24)	.40(23.0)	.40(29.80)		.40(9.46)	.40(12.62)
Silver	mg/l(kg/day)	.08(2.30)	.08(4.45)	.08(4.60)	.08(5.96)		.08(1.89)	.08(2.52)
Zinc	mg/l(kg/day)	1.2(34.99)	1.2(66.72)	1.2(68.99)	1.2(89.41)		1.2(28.37)	1.2(37.85)
Cyanide	mg/l(kg/day)	.40(11.50)	.40(22.24)	.40(23.0)	.40(29.80)		.40(9.46)	.40(12.62)
Phenolic Compounds	mg/l(kg/day)	2.0(57.49)	2.0(111.2)	2.0(115.0)	2.0(149.0)		2.0(47.28)	2.0(63.09)
Total Identifi- able Chlorinated Hydrocarbons (1)	mg/l(kg/day)	.004(.12)	.004(.22)	.004(.22)	.004(.30)		.004(.10)	.004(.12)

- (1) Total Identifiable Chlorinated Hydrocarbons shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyls, and other identifiable chlorinated hydrocarbons.
- (2) May be adopted at a later date.

C. RECEIVING WATER LIMITATIONS

1. The combined discharge shall not cause the following conditions to exist in waters of the State at any place.
  - a. Floating, suspended, or deposited macroscopic particulate matter, or foam;
  - b. Bottom deposits or aquatic growths;
  - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
  - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
  - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The combined discharge shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:
  - a. Dissolved oxygen      5.0 mg/l minimum. Annual median - 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
  - b. Dissolved sulfide      0.1 mg/l maximum.
  - c. pH      Variation from natural ambient pH by more than 0.2 pH units.
  - d. Un-ionized Ammonia      0.025 mg/l annual median  
as N      0.4 mg/l maximum
3. The combined discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. PROVISIONS

1. Neither the collection, treatment, storage, transmission, or discharge facilities shall create a nuisance as defined in the California Water Code.

2. Each EBDA and LAVWMA member agency shall maintain and continue to enforce its Board approved Publicly Owned Treatment Works Pretreatment Program.

This Order shall be modified, or alternatively, revoked and reissued as soon as practicable to incorporate an approved Publicly Owned Treatment Works (POTW) Pretreatment Program or a compliance schedule for the development of a POTW Pretreatment Program as required under Section 402(b)(8) of the Clean Water Act and implementing regulations, or by the requirements of the approved State pretreatment program, as appropriate.

3. The requirements prescribed by this Order supersede the requirements prescribed by all the Orders listed below. All these Orders are hereby rescinded, except as noted.

EBDA/LAVWMA & AGENCIES - APPLICABLE ORDERS						
AGENCY	ORDER NUMBER	NPDES NUMBER (CA )	PRE-SCRIBES (1)	AMENDS ORDER # (2)	DATE	
					ADOPTED	EXPIRES
EBDA	74-128	0037 869	R	-	11-1-74	7-1-79
	74-130	0037 745	R	-	11-1-74	10-1-79
San Leandro	77-71	0037 745	R	74-130	6-21-77	7-1-80
	77-72	-	TS	-	6-21-77	1-1-81
OLSD/CVSD (4)	77-75	0037 559	R	-	6-21-77	1-1-81
	77-73	0037 656	R	-	6-21-77	1-1-81
Hayward	77-74	-	TS	-	6-21-77	1-1-81
	77-76	0037 591	R	-	6-21-77	5-1-81
USD- (5)	77-77	-	TS	-	6-21-77	5-1-81
Alvarado	77-78	0037 605	R	-	6-21-77	1-1-81
USD- (5)	77-79	-	TS	-	6-21-77	1-1-81
Newark	77-80	0037 583	R	-	6-21-77	1-1-81
USD- (5)	77-81	-	TS	-	6-21-77	1-1-81
Irvington	74-133	0038 008	R&TS	-	11-1-74	10-1-79
Livermore	76-84	0038 008	R&TS	74-133	7-20-76	-
	77-159	0038 008	R	76-84	12-20-77	-
(3)				74-133		
DSRSD	74-132	0037 613	R	-	11-1-74	10-1-79
	76-85	0037 613	R&TS	74-132	7-20-76	-

- NOTES: (1) R = Requirements; TS = Time Schedule.  
 (2) Amends, but does not rescind.  
 (3) Requirements for irrigation and groundwater protection, prescribed by Order No. 71-76, will continue.  
 (4) Oro Loma Permit (Order No. 77-75) will remain in effect until the discharge is diverted into the EBDA system, or until 1-1-81, whichever occurs sooner.  
 (5) Union Sanitary District's existing three Permits (Order Nos. 77-76, Alvarado; 77-78, Newark; and 77-80, Irvington) will remain in effect until May 1, 1981 (Alvarado) and January 1, 1981 (Newark and Irvington) or until the Board rescinds Cease and Desist Order Nos. 78-24 (Alvarado), 78-25 (Newark), and 78-26 (Irvington), whichever occurs sooner.

4. EBDA shall comply with the following time schedule to assure compliance with A.2 (10:1 prohib.), B.2 (res. cl.), and C.2.d (non-dissociated ammonia) by October 1, 1980, or upon commencement of discharge, whichever occurs first:

<u>Task</u>	<u>Compliance Date</u>	<u>Report of Compliance Due</u>
Status Report	March 1, 1980	March 15, 1980
Complete construction; Commence deepwater discharge; Full compliance;	October 1, 1980	October 15, 1980

5. The City of Livermore shall comply with the following:
  - a. There shall be no discharge from the holding ponds north of the treatment facilities to surface water or to land for irrigation.
  - b. The City shall maximize land disposal discharge provided, however, that best possible irrigation management practices are used at all times so as to minimize degradation of affected ground waters during the interim period pending Regional Board determination of conditions for continued reclamation.
  - c. The requirements prescribed by this Order replace requirements prescribed by all prior orders, PROVIDED, HOWEVER, that the requirements for irrigation and ground water prescribed in Order No. 71-76 shall remain in effect.
6. This Board considers EBDA to be the agency primarily responsible for the combined waste discharge and the discharge of its member agencies to the common outfall. Therefore, in the administration and enforcement of this Order, this Board will first pursue its administrative and/or legal remedies with EBDA. If, however, the Board finds that EBDA does not have the ability or willingness to take appropriate action, or if special, unusual circumstances arise that indicate that direct action should be taken against a member agency or agencies, this Board may pursue appropriate action against such member agency or agencies.
7. EBDA, its member agencies, DSRSD, Livermore, and LAVWMA shall comply immediately with all requirements of this Order with the exception of those items delineated in applicable time schedules contained in ATTACHMENTS I through VIII.
8. EBDA, its member agencies, DSRSD, Livermore, and LAVWMA shall comply with all items of the attached "Standard Provisions and Reporting Requirements," dated April 1977, except Reporting Requirement B.2; and only EBDA, LAVWMA and USD (new Alvarado Plant) are required to file reports pursuant to Provision A.12 and Reporting Requirement B.3.

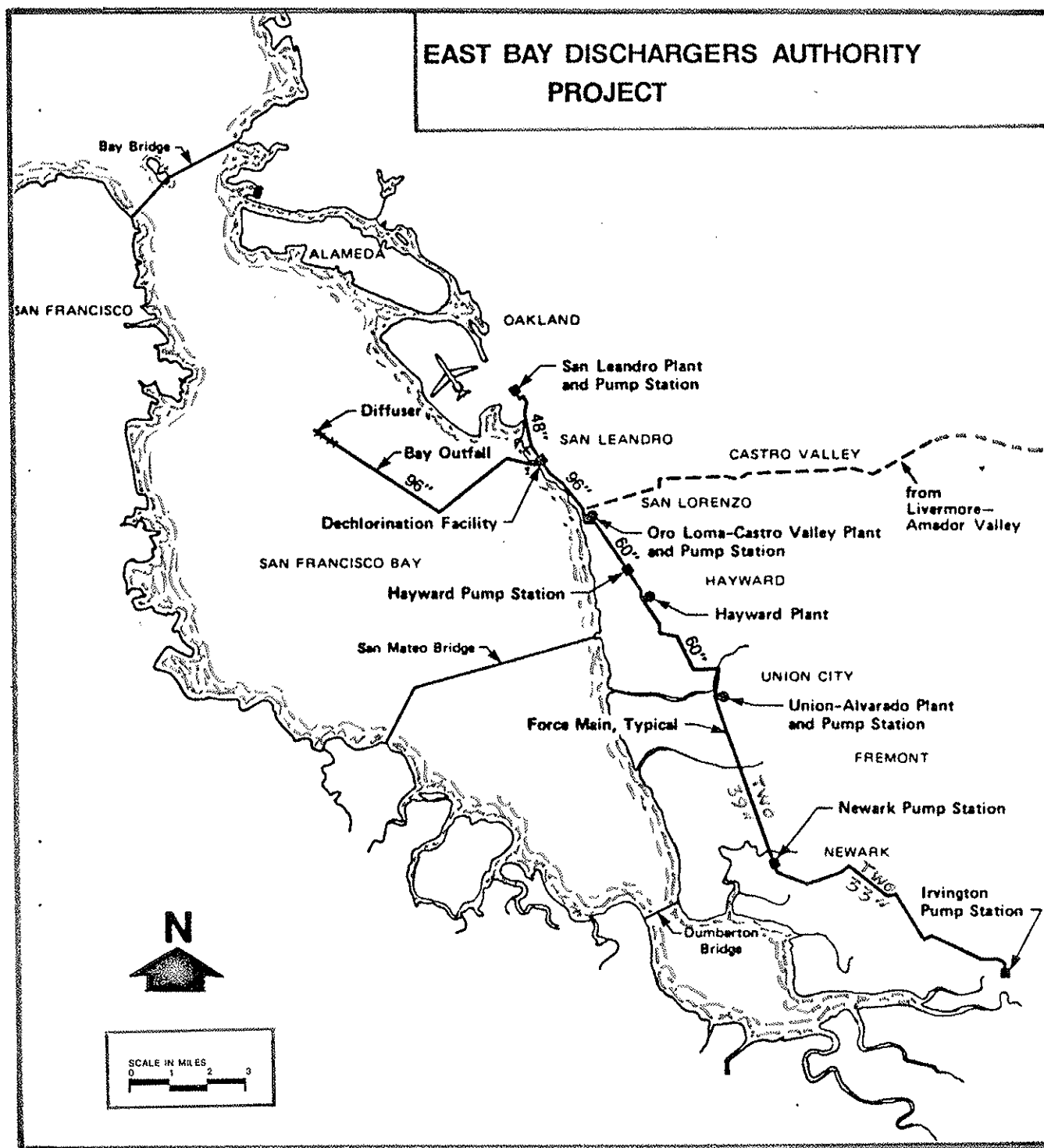
9. This Order expires on June 19, 1984, and the dischargers must file a Report of Waste Discharge in accordance with Title 23, California Administrative Code, not later than 180 days in advance of such date, as application for issuance of new waste discharge requirements.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on June 19, 1979.

FRED H. DIERKER  
Executive Officer

ATTACHMENTS:

- A - Map of EBBDA Project
- I - Interim Reqts & CTS - LAVWMA
- II - Interim Reqts & CTS - San Leandro
- III - Interim Reqts & CTS - Hayward
- IV - Interim Reqts & CTS - USD, Alvarado Plant
- V - Interim Reqts & CTS - USD, Newark Plant
- VI - Interim Reqts & CTS - USD, Irvington Plant
- VII - Interim Reqts & CTS - DSRSD
- VIII - Interim Reqts & CTS - Livermore
- Standard Provisions & Reporting Requirements, April 1977
- Resolution No. 74-10
- Self-Monitoring Programs





ATTACHMENT I

FOR LAVVMA (LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY)

The discharger, above, shall comply with all the foregoing Prohibitions, Limits, and Provisions except as below:

The discharger shall comply with the following time schedule to assure compliance with Prohibitions A.2 (10:1 dilution), and A.4 (Alameda Creek discharges):

<u>Task</u>	<u>Compliance Date</u>	<u>Report of Compliance Due</u>
Intercept Livermore and DSRSD discharges and commence discharge at Hayward	January 1, 1980	January 15, 1980

ATTACHMENT II

FOR THE CITY OF SAN LEANDRO

- A. The discharger, above, shall comply with all the foregoing Prohibitions, Limits, and Provisions with the exception of those requirements in B. (below); and except that during the period between adoption of this NPDES Permit and November 1981, the discharger shall, in addition, comply with the following interim limits:

1. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.

This requirement is applicable until the discharge is diverted into the EBDA system.

2. In any representative set of samples, the waste as discharged shall meet the following limit of quality:

Toxicity: The survival of an acceptable test organism in 96-hour bioassays of the effluent shall achieve a median of 90% survival for three consecutive samples and a 90 percentile value of not less than 70% survival for 10 consecutive samples.

This requirement is applicable until the discharge is diverted into the EBDA system.

3. BOD and Suspended Solids; as discharged, October 1, 1980 to November 2, 1981, only:

Constituent	30 day Avg.		
	mg/l	lb/day	kg/day
BOD	58	1,830	830
Suspended Solids	71	2,224	1009

- B. The discharger shall comply with the following time schedule to assure compliance with Prohibition A.2. (10:1 dil.), Effluent Limitations B.1.a. (BOD), B.1.b. (Sus. Sol.), B.6. (85% remov.), and Receiving Water Limitations C.2.d. (un-ionized ammonia):

<u>Task</u>	<u>Compliance Date</u>	<u>Report of Compliance Due</u>
1. Commence construction of roughing filter and plant improvements	September 7, 1979	September 21, 1979
2. Status report: construction of roughing filter and plant improvements	- -	April 1, 1980 December 1, 1980
3. Commence discharge to Bay outfall in compliance with Prohibition A.2	October 1, 1980	October 15, 1980

4. Complete construction of roughing filter and plant improvements	September 7, 1981	September 21, 1981
5. Full compliance	November 2, 1981	November 16, 1981

# ATTACHMENT III

## FOR THE CITY OF HAYWARD

A. The discharger, above, shall comply with all the foregoing Prohibitions, Limits, and Provisions; with the exception of the requirements shown in B (below); and except that during the period between adoption of this NPDES Permit and June 1983, the discharger shall, in addition, comply with the following interim effluent limits:

1. The pH of the discharge shall not exceed 8.5 nor be less than 6.5. This requirement is applicable until the discharge is diverted into the ERDA system.
2. In any representative set of samples, the waste as discharged shall meet the following limit of quality:

Toxicity: The survival of an acceptable test organism in 96-hour bioassays of the effluent shall achieve a median of 90% survival for three consecutive samples and a 90 percentile value of not less than 70% survival for 10 consecutive samples.

This requirement is applicable until the discharge is diverted into the ERDA system.

3. Settleable Matter, in any grab sample; as discharged:

Prior to June 1, 1981; -

The arithmetic average of any six  
or more samples collected on any day: 0.5 ml/L-hr., maximum

Any sample: 1.0 ml/L-hr., maximum

4. BOD and Suspended Solids; as discharged:

PERIOD		30 day average		
		Max. BOD mg/L	Max. SS mg/L	
FROM	TO			
6-19-79	10-31-79	70	200	(1)
*11-1-79	5-31-80	50	110	(2)
*6-1-80	10-30-80	50	122	(1)
11-1-80	5-31-81	50	130	(2)
6-1-81	10-30-81	39	90	(1)
11-1-81	5-31-82	36	75	(2)
6-1-82	10-30-82	39	90	(1)
11-1-82	1-3-83	36	75	(2)
*Jointly with LAVVMA				
(1) Canning Season. (2) Non-canning Season.				

B. The discharger shall comply with the following time schedule to assure compliance with Prohibition A.2 (10:1 dilution), Effluent Limitations B.1.a (BOD), B.1.b (Suspended Solids), B.1.d (Settleable Matter), B.6 (85% removal), and Receiving Water Limitation C.2.d (un-ionized ammonia):

<u>Task</u>	<u>Compliance Date</u>	<u>Report of Compliance Due</u>
1. Commence design of		
a. Fixed Film Reactor and Primary Clarifier (FFR/C)	7-2-79	7-16-79
b. Non-critical auxiliary units (NCU) including solids handling equipment and sludge gas system	11-1-79	11-15-79
2. Award Fluidized Bed Reactor (FBR) Pilot Plant Constr. Contract	completed	completed
3. Commence FBR pilot operation	6-21-79	7-5-79
4. Complete design of FFR/C	5-1-80	5-15-80
5. Award Constr. Contract for FFR/C	8-1-80	8-15-80
6. Commence design of FBR full-size unit	3-1-80	3-15-80
7. Divert all discharges into EBDA system	11-3-80	11-17-80
8. Progress report FFR/C constr.	-	11-17-80
9. Complete design FBR plant unit and NCU	3-2-81	3-16-81
10. Award Constr. Contracts, FBR & NCU	6-1-81	6-15-81
11. Complete constr. of FFR/C and commence operation	6-1-81	6-15-81
12. Progress report FBR & NCU	-	3-15-82
13. Complete constr. FBR unit and commence operation in compliance with requirements	1-3-83	1-15-83
14. Complete NCU construction, and commence operation, and demonstrate compliance	6-1-83	6-15-83

ATTACHMENT IV

FOR UNION SANITARY DISTRICT - ALVARADO PLANT

A. The discharger, above, shall comply with all the foregoing Prohibitions, Limits, and Provisions with the exception of those shown in B. (below); and except that during the period between adoption of this NPDES Permit and June 1981, the discharger shall, in addition, comply with the following interim limits:

1. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.

2. Settloable Matter, in any grab sample:

The arithmetic average of any 6 or  
more samples collected on any day: 0.5 ml/L-hr., maximum

Any sample 1.0 ml/L-hr., maximum

3. BOD, 30-day average: 60 mg/L, maximum  
2260 lbs/day, maximum

4. Suspended Solids, 30-day average: 75 mg/L, maximum  
2815 lbs/day, maximum

5. Grease and Oil, 30-day average: 15 mg/L, maximum  
565 lbs/day, maximum

6. The discharge shall not cause the waters of Alameda Creek to have a dissolved oxygen concentration of less than 5.0 mg/l at any place more than 1500 feet downstream from the treatment plant discharge.

B. The discharger shall comply with the following time schedule to assure compliance with Prohibition A.2. (10:1 dil.), Effluent Limitations B.1.a. (BOD), B.1.b. (Sus. Sol.), B.1.c. (Grease and Oil), B.1.d. (Sett. Matt.), B.1.f. (Toxicity), B.1.g. (85% remov.), B.4. (Toxicants), Receiving Water Limitations C.1.a. (foam), C.1.c. (alt. of temp.), C.2.a. (DO), and C.2.d. (un-ionized ammonia):

<u>Task</u>	<u>Compliance Date</u>	<u>Report of Compliance Due</u>
1. Status Report construction -		January 2, 1980
2. Complete construction of interceptor to Hayward and status report of other construction:	July 1, 1980	July 15, 1980
3. Complete construction of pump station, treatment plant and commence discharge to interceptor and bay outfall in compliance with Prohibition A.2:	February 2, 1981	February 16, 1981
4. Full compliance	June 1, 1981	June 15, 1981

ATTACHMENT V

FOR UNION SANITARY DISTRICT - NEWARK PLANT

A. The discharger, above, shall comply with all the foregoing Prohibitions, Limits, and Provisions with the exception of those shown in B. (Below); and except that during the period between adoption of this NPDES Permit and March 1981, the discharger shall, in addition, comply with the following interim limits:

1. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.

2. Settleable Matter, in any grab sample:

The arithmetic average of any 6 or  
more samples collected on any day: 0.5 ml/L-hr., maximum

Any sample 1.0 ml/L-hr., maximum

3. BOD, 30-day average: 135 mg/L, maximum  
7885 lbs/day, maximum

4. Suspended Solids, 30-day average: 115 mg/L, maximum  
6715 lbs/day, maximum

5. Grease and Oil, 30-day average: 20 mg/L, maximum  
1170 lbs/day, maximum

6. The discharge shall not cause the waters of Newark Slough to have a dissolved oxygen concentration of less than 4.0 mg/l at any point beyond 2000 feet from the point of discharge.

B. The discharger shall comply with the following time schedule to assure compliance with Prohibition A.2. (10:1 dil.), A.3. (So. Bay Pro.), Effluent Limitations B.1.a. (BOD), B.1.b. (Sus. Sol.), B.1.c. (Grease and Oil), B.1.d. (Sett. Matt.), B.1.f. (Toxic.), B.1.g. (85% remov.), B.4. (Toxicants), Receiving Water Limitations C.1.a. (foam), C.1.c. (alt. of temp.), C.2.a. (DO), and C.2.d. (un-ionized ammonia):

<u>Task</u>	<u>Compliance Date</u>	<u>Report of Compliance Due</u>
1. Status report: Construction	-	January 2, 1980
2. Complete construction of force- main between Newark and Alvarado	November 3, 1980	November 17, 1980
3. Complete pump station, commence discharge to interceptor and achieve full compliance	March 2, 1981	March 16, 1981

ATTACHMENT VI

FOR UNION SANITARY DISTRICT - IRVINGTON PLANT

- A. The discharger, above, shall comply with all the foregoing Prohibitions, Limits, and Provisions with the exception of those shown in B. (below); and except that during period between adoption of this NPDES Permit and April 1981, the discharger shall, in addition, comply with the following interim limits:

1. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.

2. Settleable Matter, in any grab sample:

The arithmetic average of any 6 or  
more samples collected on any day: 0.5 ml/L-hr., maximum

Any sample 1.0 ml/L-hr., maximum

3. BOD, 30-day average: 95 mg/L, maximum  
8320 lbs/day, maximum

4. Suspended Solids, 30-day average 75 mg/L, maximum  
6570 lbs/day, maximum

5. Grease and Oil, 30-day average 20 mg/L, maximum  
1755 lbs/day, maximum

6. The discharge shall not cause the waters of Mud Slough to have less than a dissolved oxygen concentration of 2.0 mg/l at any point beyond 2000 feet from the point of discharge.

- B. The discharger shall comply with the following time schedule to assure compliance with Prohibition A.2. (10:1 dil.), A.3. (So. Bay Pro.), Effluent Limitations B.1.a. (BOD), B.1.b. (Sus. Sol.), B.1.c. (Grease and Oil), B.1.d. (Sett. Matt.), B.1.f. (Toxic.), B.1.g. (85% remov.), B.4. (Toxicants), Receiving Water Limitations C.1.a. (foam), C.1.c. (alt. of temp.), C.2.a. (DO), and C.2.d. (un-ionized ammonia):

<u>Task</u>	<u>Compliance Date</u>	<u>Report of Compliance Due</u>
1. Status report: construction -		January 2, 1980
2. Complete construction of force- main between Irvington and Newark	October 1, 1980	October 15, 1980
3. Complete pump station, commence discharge to interceptor and achieve full compliance	April 1, 1981	April 15, 1981



ATTACHMENT VII

FOR DSRSD (DUBLIN SAN RAMON SERVICES DISTRICT)

The discharger, above, shall comply with all the foregoing Prohibition, Limits, and Provisions, except that:

- A. Prior to commencement of discharges into the LAVVMA system, the discharger shall, in addition, comply with the following limits for any discharge to Alamo Canal:

1. The discharge of an effluent in excess of the following limits is prohibited:

<u>Constituents</u>	<u>Units</u>	<u>30-Day Average</u>	<u>Daily Maximum</u>	<u>Instantaneous Maximum</u>
a. BOD	mg/L	5.0	10.0	-
	lbs/day	278	556	-
	kg/day	126	252	-
b. Suspended Solids	mg/L	5.0	10.0	-
	lbs/day	278	556	-
	kg/day	126	252	-
c. Grease & Oil	mg/L	-	5.0	-
	lbs/day	-	278	-
	kg/day	-	126	-
d. Chlorine Residual	mg/L	-	-	0.0
e. Turbidity NTU		-	10	-

2. At some point in the treatment process or as discharged, the waste shall not exceed a median MPN of coliform organisms 2.2/100 ml as determined from the results of the previous consecutive 7 days for which analyses have been completed.

3. The discharge shall not exceed the following effluent limitations:

For 24-hour composite samples collected on at least two days each week:

	<u>Pounds Per Day, average</u>
a. Total Dissolved Solids	28,400
b. Chlorides	6,900

4. The discharge of waste shall not cause a variation from natural ambient pH by more than 0.5 pH units in waters of the State at any place.

5. The following chemical quality limits shall be maintained in the surface waters of the Alameda Creek watershed above Niles:

TDS: 250 mg/l 90 day arithmetic mean  
360 mg/l 90 day 90th percentile  
500 mg/l daily maximum

Chlorides: 60 mg/l 90 day-arithmetic mean  
100 mg/l 90 day-90th percentile  
250 mg/l daily maximum

Whenever natural factors cause the above limits to be exceeded, then,  
**controllable water quality factors shall not cause further degradation.**

B. The discharger shall, in addition, comply with the following limits for either shallow water discharge to San Francisco Bay through LAVWMA and City of Hayward facilities or direct discharge to Alamo Canal:

1. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.
2. In any representative set of samples, the waste as discharged shall meet the following limit of quality:

Toxicity: The survival of an acceptable test organism in 96-hour bioassays of the effluent shall achieve a median of 90% survival for three consecutive samples and a 90 percentile value of not less than 70% survival for 10 consecutive samples.

ATTACHMENT VIII

FOR THE CITY OF LIVERMORE

The discharger, above, shall comply with all the foregoing Prohibitions, Limits, and Provisions, except that:

- A. Prior to commence of discharges into the LAVVMA system, the discharger shall, in addition, comply with the following limits for any discharge to Arroyo las Positas:

1. The discharge of an effluent containing constituents in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>30-Day Average</u>	<u>Daily Maximum</u>	<u>Instantaneous Maximum</u>
a. BOD	mg/L	5.0	10.0	-
	lbs/day	243	486	-
	kg/day	110	220	-
b. Suspended Solids	mg/L	5.0	10.0	-
	lbs/day	243	486	-
	kg/day	110	220	-
c. Grease & Oil	mg/L	-	5.0	-
	lbs/day	-	243	-
	kg/day	-	110	-
d. Chlorine Residual	mg/L	-	-	0.0
e. Turbidity	NTU	-	10	-

2. At some point in the treatment process or as discharged, the waste shall not exceed a median MPN of coliform organisms 2.2/100 ml as determined from the results of the previous consecutive 7 days for which analyses have been completed.

3. The discharge shall not exceed the following effluent limitations:

For 24-hour composite samples collected on at least two days each week:

Pounds Per Day, average:

- |                           |   |
|---------------------------|---|
| a. Total Dissolved Solids | $41.7 \times (\text{Weighted average concentration of TDS in the water supply} + 405) *$    |
| b. Chlorides              | $41.7 \times (\text{Weighted average concentration of chloride in the water supply} + 110)$ |

\*8.34 (factor)  $\times$  5.0 (design flow in MGD)  $\times$  (conc. in mg/L)

4. The discharge of waste shall not cause a variation from natural ambient pH by more than 0.5 pH units in waters of the State at any place.
5. The following chemical quality limits shall be maintained in the surface waters of the Alameda Creek watershed above Niles:

TDS:	250 mg/l 90 day-arithmetic mean
	360 mg/l 90 day-90th percentile
	500 mg/l daily maximum

Chlorides:	60 mg/l 90 day-arithmetic mean
	100 mg/l 90 day-90th percentile
	250 mg/l daily maximum

Whenever natural factors cause the above limits to be exceeded, then, **controllable water quality factors shall not cause further degradation.**

- B. The discharger shall, in addition, comply with the following limits for either shallow water discharge to San Francisco Bay through LAVWA and City of Hayward facilities or discharge to Arroyo las Positas:

1. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.
2. In any representative set of samples, the waste as discharged shall meet the following limit of quality:

Toxicity:	The survival of an acceptable test organism in 96-hour bioassays of the effluent shall achieve a median of 90% survival for three consecutive samples and a 90 percentile value of not less than 70% survival for 10 consecutive samples.
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